Flood Control Project Maintenance

2018 Structure Summary Report

Overall Unit and Item Ratings

Lake County Watershed Protection District

Clover Creek Diversion Structure

Overall Unit Rating	Rated Item	Item Rating
A	Photo Documentation	N
	Vegetation & Obstructions	Α
	Shoaling / Sedimentation	Α
	Erosion / Bank Caving	Α
	Revetments	N
	Encroachments	Α
	Culverts: Inlets / Outlets	М
	Culverts: Breaks / Holes / Cracks	Α
	Metal Pipes	Α
	Trash Racks	N
	Flap Gates	N
	Sluice/Slide Gates	Α
	Electric Gate Operators	N
	Manual Gate Operators	Α
	Concrete Surfaces	Α
	Concrete Tilting / Settlement	Α
	Concrete Foundations	Α
	Security Fencing	N
	Closure Structures	N
	Trash Rakes	N
	Other Metallic Items	Α
	Monolith Joints	N
	Safety	Α
	Operation & Maintenance Manual	Α

Tuesday, August 28, 2018 11:28 Page 1 of 1

Flood Control Project Maintenance

Unit Cover Sheet

2018 Structure Inspection Results

Lake County Watershed Protection District

Structure	
Clover Creek Diversion Structure	

Structure Rating	Α
Date of Inspection	7/12/2018
DWR Inspector	Zach Jojola
Accompanied By	Corey Fujitani
	Bob Duffey DWR
	Bryan Reniff Sutter Maintenance Yard

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00 Rating ** N			Issue No.		1		
LM End	0.00	Ma	Location *					
Category		s & Concrete I	_ined	GPS La	atitud	le/Longitude		
	Channels			Start		End		
Item	Photo Do	cumentation		39.177050 ° 39.1770		39.177050°		
item				-122.8987	50°	-122.898750 °		
DWR ID	WR ID DWR_NA0009_36_t _ 2012_1					·		
Action/Comments								

Inspector Comments: Clover Creek Diversion Structure has three culverts with two slide gates, and a gate to divert the water during high water season.

Photo 1 of 1: ST_2018_NA0009_36_1_20180716_00011.	jpg



View of the structure. Summer 2018.

LM Start	0.00 Rating **		Α	Issue No.		2
LM End	0.00 Issue Type + Ma			Location *		
Category	Structures	& Concrete I	_ined	GPS La	atituc	le/Longitude
Calegory	Channels			Start		End
Item	Vegetatio	n & Obstruction	ons	39.1770	50°	39.177050°
пеш				-122.8987	50°	-122.898750 °
DWR ID	DWR_NA0009_36_t _ 2012_2					

Action/Comments

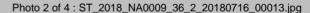
Inspector Comments: The channel had minimal vegetation and scattered obstructions, but the flow is not impeded.

Photo 1 of 4 : ST_2018_	NA0009_36_2_	20180716_00012	.jpg
			A. 100
		VI 12 2018	

View of the vegetation at the outlet of the structure. Summer 2018.

 LM Start
 0.00
 Rating **
 A
 Issue No.
 2 (cont)

 LM End
 0.00
 Issue Type +
 Ma
 Location *





View of the vegetation downstream of the structure. Summer 2018.

* Location LS : Land Side WS : Water Side CR : Crown

* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected VW : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00 Rating ** A			Issue No.		2 (cont)
LM End	0.00 Issue Type + Ma			Location *		
Category		& Concrete I	_ined	GPS La	atitud	e/Longitude
	Channels			Start		End
Item	Vegetatio	n & Obstruction	ns	39.1770	50°	39.177050
				-122.898750 °		-122.898750
DWR ID	DWR_NA0009_36_t _ 2012_2					
Action/Comments						

Inspector Comments: The channel had minimal vegetation and scattered obstructions, but the flow is not impeded.

LM Start	0.00	Rating **	Α	Issue No.	2 (cont)
LM End	0.00	Issue Type +	Ma	Location *	



View of the vegetation upstream of the structure. Summer 2018.

Photo 4 of 4: ST_2018_NA0009_36_2_20180716_00018.jpg



View of the minor vegetation at the headwall. Summer 2018.

	LM Start	0.00	0.00 Rating ** A				3	
	LM End	0.00 Issue Type + Ma			Location *			
	Category		s & Concrete I	_ined	GPS La	titud	e/Longitude	
		Channels			Start		End	
	Item	Shoaling /	Sedimentation	on	39.1770	50°	39.177050	0
	пеш				-122.8987	50°	-122.898750	0
	DWR ID	DWR_NA0009_36_t _ 2012_3						

Action/Comments

Inspector Comments: Minimal shoaling and sedimentation present. Will not impede flow.

No Photos

* Location

LS: Land Side

WS: Water Side

CR: Crown

* Rating

A : Acceptable M : Minimally Acceptable N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	Α	Issue No.	4		
LM End	0.00	Issue Type +	Ma	Location *			
Category	Structures & Concrete Lined			GPS Latitude/Longitude			
Calegory	Channels		Start		End		
Itom	Erosion /	Bank Caving		39.177050	°	39.177050°	
пеш	Item			-122.898750)°	-122.898750 °	
DWR ID	DWR_NA0	009_36_t _ 201	2_4				
	A = 1' = = 10 = = = = = 1 =						

Action/Comments

Inspector Comments: There was no visible active erosion or bank caving observed.

No Photos

Issue No. LM Start 0.00 Rating ** Ν Issue Type + Ма Location * 0.00 LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Revetments 39.177050° 39.177050° Item -122.898750° -122.898750 ° DWR NA0009 36 t 2012 5 DWR ID

Action/Comments

Inspector Comments: No revetment exists at this structure.

No Photos

Issue No. Rating ** LM Start 0.00 0.00 Issue Type + Ma Location * LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels End Start Encroachments 39.177050° 39.177050 ° Item -122.898750° -122.898750 ° DWR ID DWR_NA0009_36_t _ 2012_6 Action/Comments

Inspector Comments: No trash or debris were present in the channel.

No Photos

Location LS: Land Side WS: Water Side CR : Crown

A: Acceptable M: Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence

Page 4 of 9

Flood Control Project Maintenance Levee Inspections

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	М	Issue No.		7	
LM End	0.00	Issue Type +	Ma	Location *			
Structures & Concrete Lined			GPS Latitude/Longitude				
Calegory	Channels	Channels				End	
Item	Culverts:	Inlets / Outlets	5	39.1770	50°	39.177050°	
пеш				-122.8987	50°	-122.898750 °	
DWR ID	DWR_NA0	009_36_t _ 201	2_7			·	
Action/Comments							

Inspector Comments: Vegetation at the outlet of the structure. Does not

appear to impede flow, but should be maintained.

Issue No. LM Start 0.00 Rating ** Α Issue Type + Ма Location * 0.00 LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Culverts: Breaks / Holes / 39.177050° 39.177050° Item Cracks -122.898750° -122.898750 ° DWR_NA0009_36_t _ 2012_8 DWR ID

Action/Comments Inspector Comments: There were no visible holes or cracks in the

culvert.

DWR ID

Issue No. Rating ** LM Start 0.00 0.00 Issue Type + Ma Location * I M End Structures & Concrete Lined GPS Latitude/Longitude Category Channels End Start Metal Pipes 39.177050° 39.177050 ° Item -122.898750° -122.898750 °

Action/Comments

DWR_NA0009_36_t _ 2012_9

Inspector Comments: The metal pipes appeared to be in good condition.

No Photos

No Photos

No Photos

Location LS: Land Side WS: Water Side CR : Crown

A: Acceptable : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	N	Issue No.	10		
LM End	0.00	Issue Type +	Ma	Location *			
Structures & Concrete Lined				GPS Latitude/Longitude			
Calegory	Channels	Channels				End	
Item	Trash Rad	cks		39.17705	o°	39.177050°	
пеш				-122.89875	o°	-122.898750 °	
DWR ID	DWR_NA0	060_36_t _ 201	3_10				
Action/Comments							

Inspector Comments: There are no trash racks at this structure.

No Photos

Rating ** Issue No. LM Start 0.00 Ν 0.00 Issue Type + Ма Location * LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Flap Gates 39.177050° 39.177050° Item -122.898750° -122.898750 ° DWR_NA0009_36_t _ 2012_11 DWR ID

Action/Comments

Inspector Comments: Flap gates don't exist at this structure.

No Photos

LM Start	0.00	Rating **	Α	Issue No.		12	
LM End	0.00	Issue Type +	Ма	Location *			
Catagony	Structures & Concrete Lined			GPS Latitude/Longitude			
Calegory	Channels		Start		End		
Item	Sluice/Slice	de Gates		39.1770	50°	39.177050°	
пеш			-122.8987	50°	-122.898750 °		
DWR ID	DWR_NA0	009_36_t _ 201	2_12				

Action/Comments
Inspector Comments: The slide gates appeared to be in good working condition.

Photo 1 of 1: ST_2018_NA0009_36_12_20180716_00016.jpg



View of the slide gates. Summer 2018.

* Location
LS: Land Side
WS: Water Side
CR: Crown

** Rating

A : Acceptable
M : Minimally Acceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

III EII. EIIIOICE

NA0009

Flood Control Project Maintenance Levee Inspections

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	N	Issue No.	13			
LM End	0.00	Issue Type +	Ma	Location *				
Catagony	Structures & Concrete Lined Channels			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Electric G	ate Operators	3	39.1770	50°	39.177050°		
пеш				-122.8987	50°	-122.898750 °		
DWR ID	DWR_NA0	009_36_t _ 201	2_13					
	A :: 10							

Action/Comments

Inspector Comments: Electric gate operators do not exist at this location.

No Photos

LM Start	0.00	Rating **	Α	Issue No.		14	
LM End	0.00	Issue Type +	Ma	Location *			
Category	Structures & Concrete Lined			GPS Latitude/Longitude			
Calegory	Channels			Start		End	
Item	Manual G	ate Operators	i	39.1770	50°	39.177050°	
iteiii			-122.8987	50°	-122.898750 °		
DWR ID	DWR_NA0	009_36_t _ 201	2_14				

Action/Comments

Inspector Comments: The manual gate operators appeared to be operational.



View of the manual gate operators. Summer 2018.

LM Start	0.00	Rating **	Α	Issue No.	15		
LM End	0.00	Issue Type +	Ма	Location *			
Catagony	Category Structures & Concrete Lined Channels			GPS Latitude/Longitude			
Calegory				Start		End	
ltom	Concrete	Surfaces		39.17705	o°	39.177050	
Item			-122.898750		-122.898750		
DWR ID	DWR_NA0	009_36_t _ 201	2_15				
	Action/Comments						

Action/Comments

Inspector Comments: There was no scaling or cracking on the concrete surfaces

No Photos

Location LS: Land Side WS: Water Side

A: Acceptable M: Minimally Acceptable

N: Not Inspected/Rated Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	Α	Issue No.	16	
LM End	0.00	Issue Type +	Ma	Location *		
Cotogony	Structures & Concrete Lined			GPS Latitude/Longitude		
Category	Channels	hannels				End
Item	Concrete Tilting / Settlement			39.17705	o°	39.177050°
пеш					o°	-122.898750 °
DWR ID	DWR_NA0	0009_36_t _ 2012_16				
Action/Comments						

Inspector Comments: There was no sign of settlement or tilting at this structure.

No Photos

No Photos

Rating ** Issue No. LM Start 0.00 Α 0.00 Issue Type + Ма Location * LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Concrete Foundations 39.177050° 39.177050° Item -122.898750° -122.898750 ° DWR ID DWR_NA0060_36_t _ 2013_24

Action/Comments

Inspector Comments: There was no scouring or erosion near the structure.

LM Start	0.00	Rating **	N	Issue No.	18		
LM End	0.00	Issue Type +	Ma	Location *			
Structures & Concrete Lined			GPS Latitude/Longitude				
Category	Channels			Start		End	
Item Security Fencing		39.1770	50°	39.177050	٥		
		-122.8987	50 °	-122.898750	0		
DWR ID	/R ID DWR_NA0009_36_t _ 2012_18						
Action/Comments							

Inspector Comments: Security fences do not exist at this location.

No Photos

Location LS: Land Side WS: Water Side

A: Acceptable M: Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	N	Issue No.	19		
LM End	0.00	Issue Type +	Ma	Location *			
Catagony	Structures & Concrete Lined			GPS Latitude/Longitude			
Category Channels				Start		End	
Item	Closure Structures			39.17705	o°	39.177050°	
пеш					o°	-122.898750 °	
DWR ID	DWR_NA0	0009_36_t _ 2012_19					
Action/Comments							

Action/Comments

Inspector Comments: Closure structure doesn't exist at this location.

	LM Start	0.00	Rating **	N	Issue No.		20	
	LM End	0.00	Issue Type +	Ma	Location *			
Structures & Concrete Line				_ined	GPS Latitude/Longitude			
	Calegory	Channels			Start		End	
	Item	Trash Ral	kes		39.1770	50°	39.177050	0
	item				-122.8987	50°	-122.898750	0
	DWR ID	DWR_NA0	009_36_t _ 201	2_20				

No Photos

No Photos

Action/Comments

Inspector Comments: There are no trash rakes at this structure.

LM Start	0.00	Rating **	Α	Issue No.	21	
LM End	0.00	Issue Type +	Ma	Location *		
Category Structures & Concrete Lined Channels			GPS Latitude/Longitude			
			Start		End	
Item	Other Metallic Items			39.1770	50°	39.177050°
пеш					50°	-122.898750 °
DWR ID	DWR_NA0009_36_t _ 2012_21					
Action/Comments						

Inspector Comments: Metallic parts appeared to be in a good condition.

No Photos

Location LS: Land Side WS: Water Side

CR : Crown

A: Acceptable M : Minimally Acceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Structure 2018

Lake County Watershed Protection District

Structure	Structure Length	Inspection Start/End	Inspector
Clover Creek Diversion Structure		07/12/2018 07/12/2018	Zach Jojola

LM Start	0.00	Rating **	N	Issue No.	22	
LM End	0.00	Issue Type +	Ма	Location *		
Catagony	Structures & Concrete Lined			GPS Latitude/Longitude		
Category Channels		Start		End		
Item	Monolith Joints			39.177050	o°	39.177050°
пеш	item		-122.898750	°	-122.898750 °	
DWR ID	DWR_NA0	009_36_t _ 201	2_22			·
A - 1' 1'O 1 -						

Action/Comments

Inspector Comments: Monolith joints do not exist at this location.

No Photos

Issue No. LM Start 0.00 Rating ** Α 23 Issue Type + Ма Location * 0.00 LM End Structures & Concrete Lined GPS Latitude/Longitude Category Channels Safety 39.177050° 39.177050° Item -122.898750° -122.898750 ° DWR NA0009 36 t 2012 23 DWR ID

Action/Comments

Inspector Comments: New steel handrail was placed around the structure. No safety hazard was present.

No Photos

Issue No. Rating ** LM Start 0.00 17 0.00 Issue Type + Ma Location * I M End Structures & Concrete Lined GPS Latitude/Longitude Category Channels End Start Operation & Maintenance 39.177050° 39.177050 ° Item Manual -122.898750° -122.898750 ° DWR_NA0060_36_t _ 2013_17 DWR ID Action/Comments

Inspector Comments: This district has the O&M manual in the office.

No Photos

Location LS: Land Side WS: Water Side CR : Crown

A: Acceptable M: Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob: Design & System Obsolescence